

Specification:

Replace the last paragraph on page 9 with the following rewritten paragraph:

There are many ways to represent a Boolean function in a computer for a program to process. ~~This invention is not limited to any particular representation because~~ Because the representation of Boolean functions is only involved in the simplification and the constant substitution within steps 120 and 220, this invention can use any computer-oriented representation that is concise and fast to build for complex Boolean functions. Binary decision diagrams are not good for this purpose because they are not fast to build in many cases. The preferred embodiment uses directed acyclic graphs to represent Boolean functions. Each node of the directed acyclic graph is a circuit block (a logic gate, a Boolean expression, a truth table, etc.). As well known in the art, a directed acyclic graph is the natural representation of an interconnected collection of circuit components. Accordingly, steps 120 and 220 also have to use computer-oriented simplification algorithms. The simplification algorithms in the preferred embodiment include constant propagation.